A BRIEF REPORT

ON THE CHANGING NATURE

OF

EDUCATIONAL DEMOGRAPHICS

IN

NEW BRUNSWICK

MARCH, 1989

89-03376/

OUTLINE

I.	Introduction	Page 1
II.	Pupil Enrolments	Page 2
III.	Teacher Demographics	Page 4
IV.	Implications - Department of Education and School Boards	Page 5
V.	Implications - Teacher Education Institutions	Page 6
VI.	Implications - New Brunswick Teachers' Association	Page 7

INDEX OF APPENDICES

Appendix A	-	Pupil Enrolment Projections
Appendix B	-	Provincial Grade 1 Projections
Appendix C	-	Actual and Projected Enrolments
Appendix D	-	Historical and Projected Public School Enrolment by Level
Appendix E	-	Percentage Changes in Husband-Wife Families and Lone-Parent Families by Province
Appendix F	-	Percentage Change in Real Income of Families and Unattached Individuals by Province
Appendix G	-	Percentage Changes in Families With and Without School-Age Children and Unattached Individuals by Province
Appendix H	-	New Brunswick Population Percentage by Age Group
Appendix I	-	Changes in Full-Time Elementary School Teachers
Appendix J	-	Changes in Full-Time Secondary School Teachers
Appendix K	-	Experience in New Brunswick
Appendix L	-	Years Service - NBTA Members
Appendix M	-	Years Service - All NBTA Members
Appendix N	-	Years Service - Principals
Appendix O	-	Years Service - Vice-Principals
Appendix P	-	Years Service - Department Heads
Appendix Q	-	Years Service - Co-ordinators
Appendix R	-	NBTA Members - Age and District
Appendix S	-	NBTA Members - Average Ages
Appendix T^1	-	Bachelor of Education Graduates University of New Brunswick
Appendix T^2	-	Bachelor of Education Graduates Mount Allison University
Appendix T^3	-	Bachelor of Education Graduates St. Thomas University
Appendix U	-	Superintendents, Assistant Superintendents & Supervisors (English) by Eligibility Year for Retirement
Appendix V	-	Teacher Shortages in the 1990's - Causes and Possible Solutions

INTRODUCTION

1.01 As a result of the demographic changes expected to occur in education in New Brunswick, a group of representative stakeholders in education have gathered and considered statistical data from a variety of sources. These data may be helpful for projecting future needs for education in New Brunswick.

1.02 The following people were involved in the selection and discussions regarding the data:

Marven Betts, Executive Director of the New Brunswick School Trustees Association

Dr. Kenneth Cameron, Professor, Faculty of Education, University of New Brunswick

Earle Wood, Deputy Minister, Department of Education

Anthony Kennett, New Brunswick School Superintendents' Association

Louise Ouellette, Statistics, Department of Education

Dawson Murray, Deputy Executive Director of the New Brunswick Teachers' Association

2.00 STUDENT ENROLMENTS

2.01 New Brunswick experienced an increase in student enrolments through the 1960's and early 1970's (See Appendices "C" & "D"). These enrolment increases were resulted from the "baby boom". In this growth era tremendous changes were made in the educational system. One result was the dramatic increase in the number of students completing high school. Between 1957-1985, the percentage of Grade 1 students graduating at the Grade 12 level increased from 33% to 84%. These improved retention rates corresponded with the burgeoning budgets for education. However, since 1977, enrolments have declined and the numbers of teachers have been reduced (See Appendices "C"& "D"). Overall, education budgets as a percentage of total government spending have declined.

2.02 Projections for the future suggest that the declining enrolments will continue; however, that decline will slow and will level out between the years 1995 and 2003. There will be a slight increase in elementary school enrolments between 1990 and 1997 and a decrease thereafter. Secondary school enrolments will continue to decline until 1996 and thereafter will moderately increase until the year 2004 (see Appendices "C" & "D").

2.03 Societal changes will affect the type of students in New Brunswick schools in the future. There will be a slight increase in children from homes that are socially and economically secure. These will be the children of parents who have delayed getting married and also delayed having children. These parents tend to make more demands on the educational system.

Concurrent with this trend there will be a notable increase in numbers of students from lone-parent families in New Brunswick (between 1980 and 1987 there was a decrease of 7.5% in two-parent families and an increase of 28% in lone-parent families). A significant majority of children from lone-parent families come from an economically insecure environment (See Appendices "E" and "F"):

(Canadian average income of two-parent families -- $44,000.00
Canadian average income of lone-parent families -- $19,000.00
Canadian average income of lone-parent families
headed by women -- $17,000.00).

2.04 A significant majority of "at risk" children come from lower socio-economic backgrounds and therefore the number of "at risk" students in New Brunswick schools is likely to increase.

2.05 The practice of integrating special needs children in the regular classrooms in the public school system will further complicate public education.

2.06 At the same time, the number of families without children under the age of sixteen and the number of unattached individuals without children will increase. The commitment of this latter group to the support of education is questionable and the political will to put the needed financial resources into education may waver (see Appendix "E").

3.00 TEACHER DEMOGRAPHICS

3.01 New Brunswick, like other provinces in Canada, has experienced and continues to experience an aging teaching force. The average age of teachers in New Brunswick in 1976 was 32 and in 1987 it was 40 (see Appendix "S").

3.02 These statistics are a result of large numbers of teachers entering the teaching force in the late 1950's and early 1960's to accompany the burgeoning enrolments and the lack of any significant hiring between 1977 and 1987 when New Brunswick was experiencing declining enrolments and restraint programs by Government.

3.03 It is clear that there will be large numbers of teachers retiring in the 1990's and the early 2000's, thereby creating a need for new personnel (see Appendices "K", "L", "M" and "R"). Data suggest that this need for new personnel will first be felt at the administrative level since the average age at the administrative level (46) is considerably greater than that of the teaching force as a whole (40) (see Appendices "N", "O", "P" and "Q").

3.04 It appears that by the mid 90's there will be shortage of teachers of English, Mathematics, Sciences and French Second Language, especially at the secondary level (see Appendix "L"). These shortages will escalate through the 90's and early 2000's. (See Appendix "M".) These statistics become more alarming when considered in relation to the projected teacher shortage nationally and internationally. (See Appendix "V".)

4.00 IMPLICATIONS FOR THE DEPARTMENT OF EDUCATION AND SCHOOL BOARDS

4.01 Early intervention programs and strategies will have to be devised to ensure that students are retained in school whenever that is appropriate. These intervention programs will have to be designed to intercept "at risk" students at an early age and may involve personnel outside the school system---e.g. social workers. The need for kindergarten and day care programs will increase as a result of the increasing numbers of lone-parent families and potential "at risk" students.

4.02 With the reality of integration in the public school system, greater resources will have to be generated to ensure that the extensive program strategies necessary to serve the broadening range of clientele will be in place. Efforts to attract specialists such as speech and language pathologists and physiotherapists to work with students in the public schools will be necessary.

4.03 To enhance retention of students in our public school system, curricular changes and methodologies for dealing with "at risk" children will be necessary. Programs such as co-operative education and ancillary services will have to be expanded. Improvements in retention rates beyond current levels will be difficult and will require a major increase of additional resources.

4.04 School Boards will have to compete with other provinces for graduates of our provincial teacher educational institutions in an effort to retain these teachers in our provincial system. Other provinces are already experiencing teacher shortages and are currently recruiting in New Brunswick. This will accelerate the teacher shortage problems for New Brunswick School Boards.

5.00 IMPLICATIONS FOR TEACHER EDUCATION INSTITUTIONS

5.01 Teacher education institutions will have to address the current trend of declining enrolments in teacher education programs to meet the needs which will quickly be upon us (see Appendices "T^1", "T^2" and "T^3"). The institutions will have to devise programs to entice persons with backgrounds in mathematics and the sciences to become teachers.

5.02 The increase of "at risk" students and the reality of integration will have implications for instructional in methodologies. The teacher education institutions will have to adjust their strategies for educating teachers to reflect the reality of what is going to be our school population so that our future teachers will have the skills, attitudes and knowledge to work in the public schools.

6.00 IMPLICATIONS FOR N.B.T.A.

6.01 The membership of the NBTA will change. The NBTA may become an organization made up of two fairly distinct groups: on the one hand the older teachers will need services such as pre-retirement counselling and professional development which will generate renewal of commitment to education and to children; and on the other hand, the younger teachers will demand a far different form of financial counselling and professional development which will stress support and enhancement for their preservice and inservice training. This professional development component will be especially important to retain teachers in the profession given the very difficult school population they will be addressing.

6.02 The NBTA will have to initiate new efforts to ensure that these younger teachers become involved in and committed to their Association.

PROVINCE OF NEW BRUNSWICK - PROVINCE DU NOUVEAU BRUNSWICK
DEPARTMENT OF EDUCATION - MINISTERE DE L'EDUCATION
PUPIL ENROLLMENT PROJECTIONS - PREVISIONS DES INSCRIPTIONS

	ACTUAL/REEL	PROJECTIONS				
	Sept. 1987	Sept. 1988	Sept. 1989	Sept. 1990	Sept. 1991	Sept. 1992
Province	138,054	136,252	134,440	132,408	130,766	129,094
Secteur Francophone Sector	46,002	45,598	45,238	44,883	44,487	44,004
Secteur Anglophone Sector	92,052	90,654	89,202	87,525	86,279	85,090
19	7,928	8,122--8,074	8,314	8,434	8,606	8,757
20	15,928	15,573	15,199	14,781	14,458	14,160

Planning and Management Services -- DEPARTMENT OF EDUCATION, New Brunswick
1988 03 25

Calculation of Provincial Grade 1 Projections
1988-01-27

(1) Year	(2) Live Births	(3) Year +6	(4) Grade 1	(5) Ratio (4)/(2)
1975	11789	1981	12196	1.0345
1976	11811	1982	12216	1.0343
1977	11515	1983	11850	1.0291
1978	10790	1984	11263	1.0438
1979	10848	1985	11233	1.0355
1980	10636	1986	11152	1.0485
1981	10503	1987	10952	1.0427
1982	10489	1988	10995	1.0482
1983	10518	1989	11063	1.0519
1984	10360	1990	10902	1.0524
1985	10121	1991	10693	1.0565
1986	9788	1992	10349	1.0573
1987	9700	1993	10295	1.0613
1988	9700	1994	10313	1.0632

Planning and Management Services, Department of Education
1988

Appendix B

ACTUAL AND PROJECTED ENROLMENTS
SEPT. 1977 TO SEPT. 1993

ACTUAL Year	Enrolment	Cge	%Cge
1977	161,578		
1978	158,906	(2,672)	-1.7%
1979	155,744	(3,162)	-2.0%
1980	152,141	(3,603)	-2.3%
1981	148,857	(3,284)	-2.2%
1982	147,277	(1,580)	-1.1%
1983	145,524	(1,753)	-1.2%
1984	142,939	(2,585)	-1.8%
1985	140,886	(2,053)	-1.4%
1986	139,023	(1,863)	-1.3%
1987	138,054	(969)	-0.7%
1988	136,287	(1,767)	-1.3%

PROJECTED Year	Enrolment	Cge	%Cge
1989	134,497	(1,790)	-1.3%
1990	132,323	(2,174)	-1.6%
1991	130,551	(1,772)	-1.3%
1992	128,845	(1,706)	-1.3%
1993	127,140	(1,705)	-1.3%

TOTAL CHANGE

84 TO 88 (5 YRS)	(6,652)	-4.7%
89 TO 93 (5 YRS)	(7,357)	-5.5%
77 TO 88 (12 YRS)	(25,291)	-15.7%
82 TO 93 (12 YRS)	(20,137)	-13.7%

Department of Education
Province of New Brunswick
March 23, 1988

Chart A-4. Historical and Projected Public School Enrolment by Level, New Brunswick, 1961-62 to 2006-07

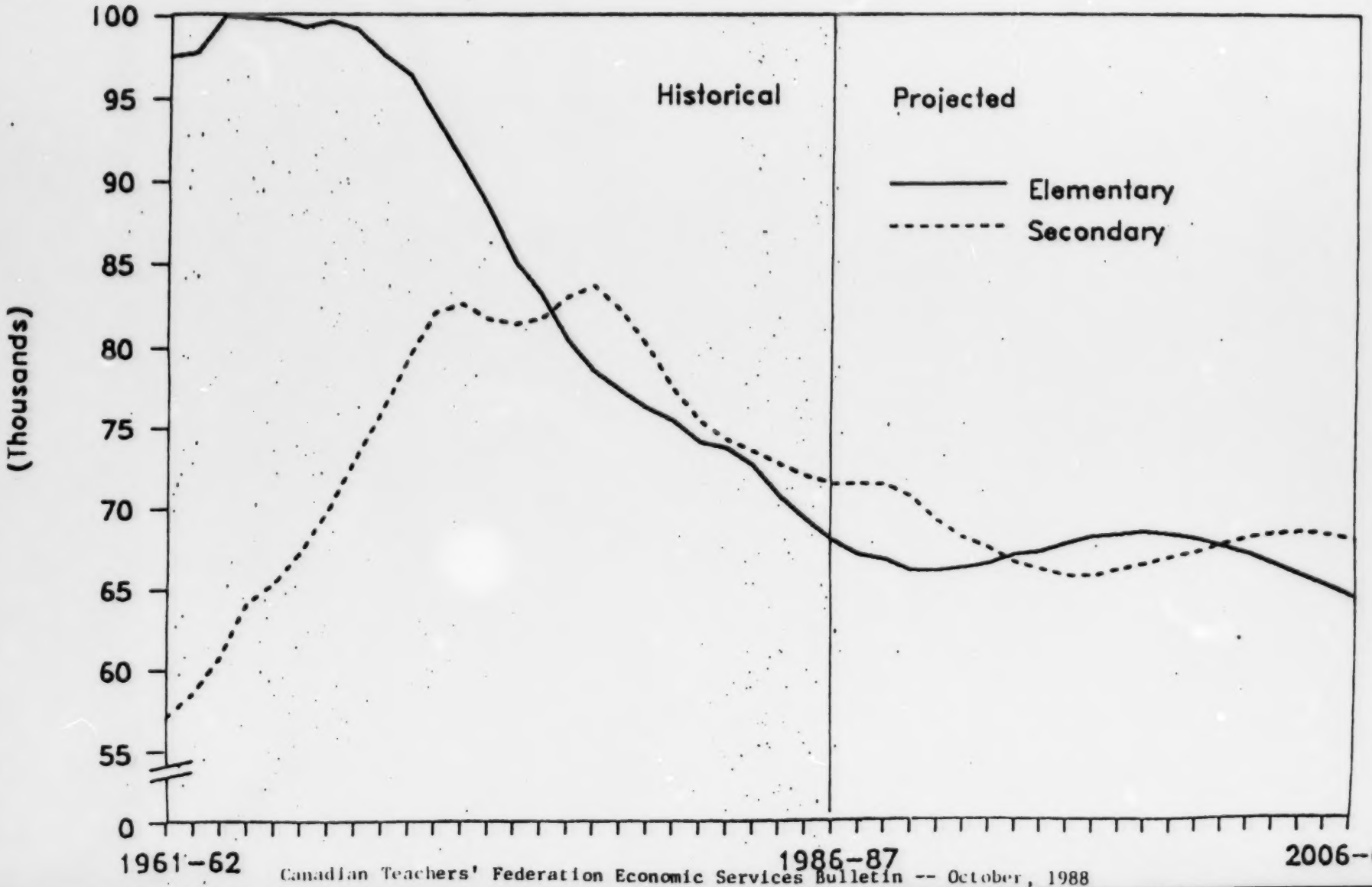
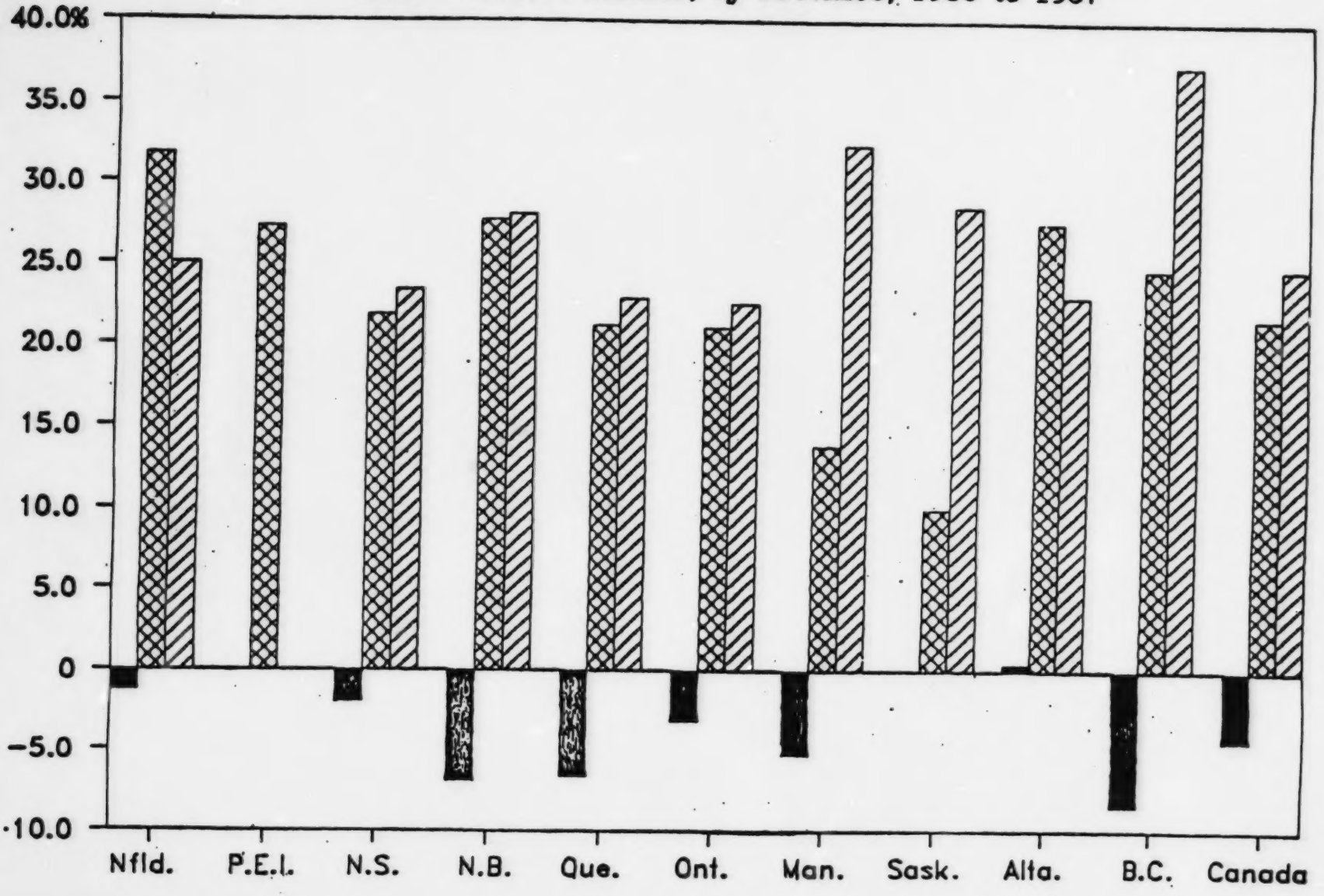


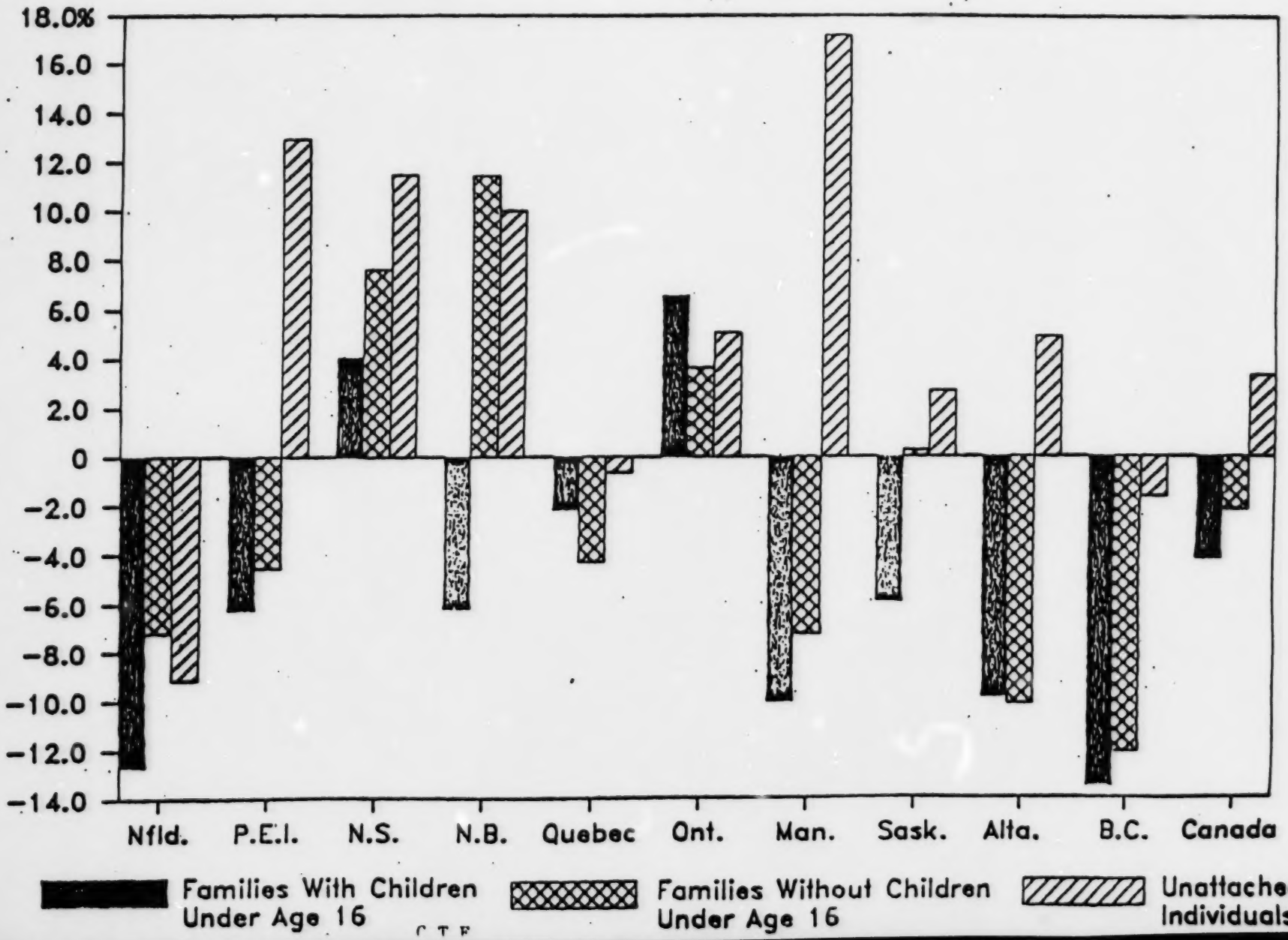
Figure A-4. Percentage Changes in Husband-Wife Families and Lone-Parent Families, by Province, 1980 to 1987



Source: Derived from Table A-6.

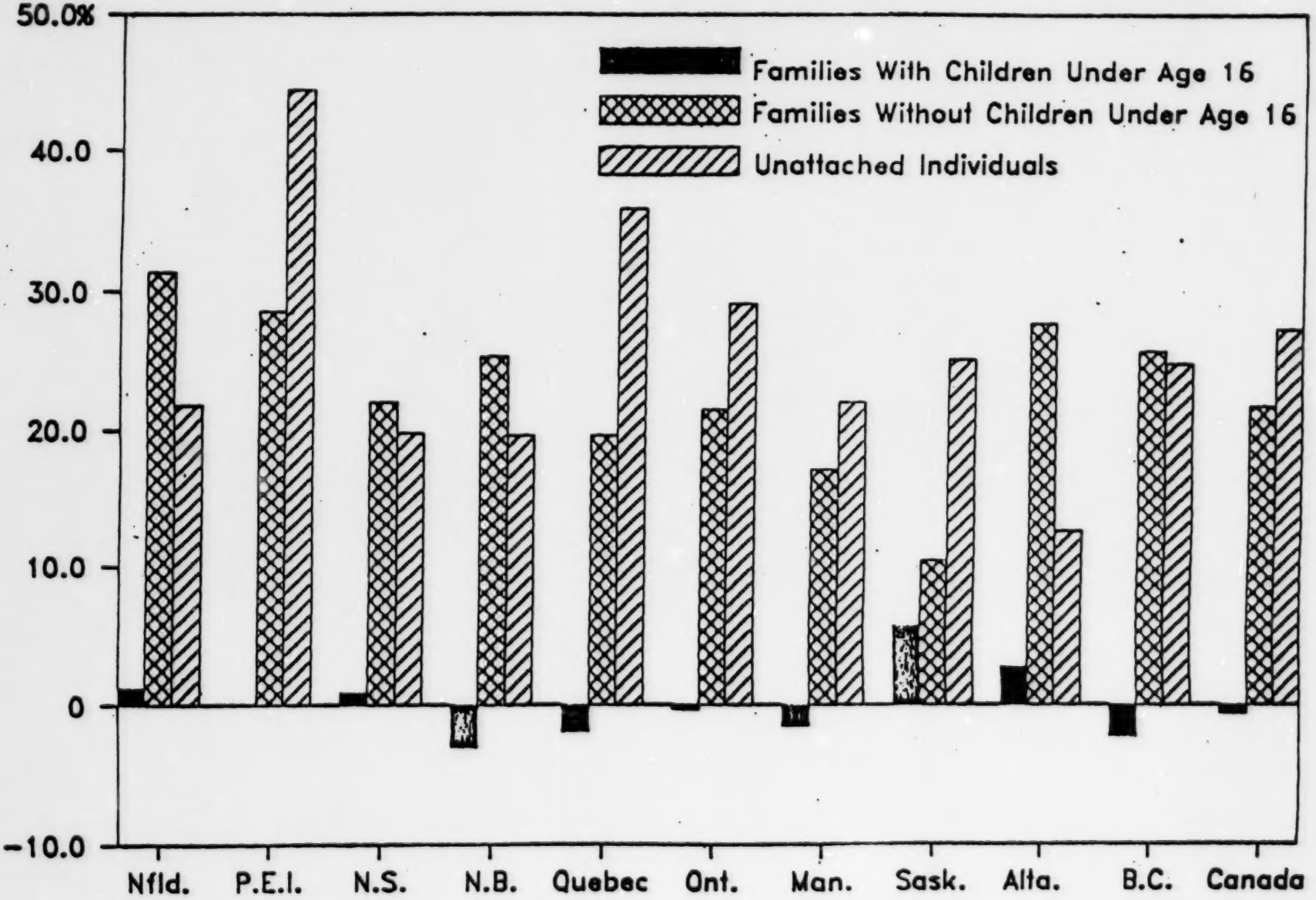
Source: Derived from Table A-6.

Figure A-5. The Percentage Change in the Real Income (1980=100) of Families and Unattached Individuals, by Province, 1980 to 1986



APPENDIX "F"

Figure A-2. Percentage Changes in Families With and Without School-Age Children (Under Age 16) and Unattached Individuals, by Province, 1980 to 1987



APPENDIX "C"

Source: Derived from Table A-3.

NEW BRUNSWICK POPULATION PERCENTAGE BY AGE GROUP

NEW BRUNSWICK POPULATION PERCENTAGE BY AGE GROUP

YEAR	0 - 14	15 - 24	25 - 34	35 - 64	65+
1961	38.0	15.2	11.3	27.7	7.5
1971	32.0	19.9	11.6	27.8	8.6
1981	24.9	19.6	16.7	28.6	10.1
1987	22.3	17.2	17.2	31.9	11.4

N.B. Statistic Agency Cabinet Secretariat, April 1988

APPENDIX "H"

CHANGES IN FULL-TIME ELEMENTARY SCHOOL TEACHERS - FIVE-YEAR INTERVALS

YEAR	NEW BRUNSWICK	CANADA
A. FULL-TIME ELEMENTARY SCHOOL TEACHERS		
1986-87	3,554	147,591
1991-92	3,656	160,227
1996-97	3,854	167,940
2001-02	3.858	164,841
2006-07	3,689	156,561
B. PERCENTAGE INCREASE, FIVE-YEAR INTERVALS		
1986-87	--	--
1991-92	2.87%	8.56%
1996-97	5.42%	4.81%
2001-02	0.10%	-1.85%
2006-07	-4.38%	-5.02%

APPENDIX "I"

CHANGES IN FULL-TIME SECONDARY SCHOOL TEACHERS -- FIVE-YEAR INTERVALS

YEAR	NEW BRUNSWICK	CANADA
A. FULL-TIME SECONDARY SCHOOL TEACHERS:		
1986-87	3,925	105,942
1991-92	3,814	108,223
1996-97	3,757	113,965
2001-02	3,872	119,085
2006-07	3,887	118,159
B. PERCENTAGE INCREASE, FIVE-YEAR INTERVALS		
1986-87	--	--
1991-92	-2.83%	2.15%
1996-97	-1.49%	5.31%
2001-02	3.06%	4.49%
2006-07	0.39%	-0.78%

APPENDIX "J"

APPENDIX "K"

EXPERIENCE IN NEW BRUNSWICK + OTHER EXPERIENCE

SERVICE (YEARS)		TOTAL			PRINCIPALS		VICE-PRINCIPALS	
			MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
2002	20	233	105	128	8	6	10	1
2000	21	219	103	116	13	2	10	3
1999	22	179	90	89	11	3	9	1
1998	23	180	78	102	15	2	11	1
1997	24	160	75	85	14	1	13	2
1996	25	162	65	97	11	1	8	0
1995	26	144	56	88	11	1	5	1
1994	27	125	50	75	16	1	2	1
1993	28	106	42	64	10	1	2	0
1992	29	88	43	45	10	3	6	1
1991	30	71	28	43	9	2	4	2
1990	31	67	22	45	3	2	0	0
1989	32	57	28	29	10	2	3	0
1988	33	43	15	28	7	1	1	0
1987	34+	56	23	33	8	2	2	0
T O T A L S		3390			155	24	86	13
					179		99	

December 4, 1987

NBTA MEMBERSHIP REGISTRATION

GRADES 7-12

NBTA MEMBERS

APPENDIX "L"

YEARS SERVICE

	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34+	Total
English	17	14	7	13	10	14	15	7	6	5	5	6	2	3	5	129
Math.	25	24	25	17	17	19	7	8	8	9	6	4	6	4	8	187
Science	5	12	11	4	4	3	2	8	0	4	6	1	1	0	1	62
Chemistry	5	0	3	4	3	1	1	2	0	0	0	1	0	0	0	20
Physics	4	4	0	1	2	2	2	4	1	1	0	1	2	0	0	25
Biology	2	2	2	0	0	0	1	0	1	0	0	0	0	0	1	9
Fr. Sec. Lang.	8	2	7	7	8	1	3	3	2	3	3	3	2	3	3	58
Sp. Ed.	6	2	0	2	6	4	1	0	1	1	1	1	0	0	0	24
Resource	1	1	0	1	1	4	0	0	0	0	0	0	0	0	0	8
M. & R.	0	1	0	1	0	1	1	1	1	0	0	0	1	0	0	7
Soc. Stud.	13	10	4	9	7	5	4	4	4	2	2	1	1	1	3	70
History	3	2	2	0	2	2	3	1	1	1	0	1	1	0	0	19

December 11, 1987

NBTA MEMBERSHIP REGISTRATION, OCTOBER, 1988

Appendix "M"

Y E A R S S E R V I C E -- ALL NBTA MEMBERS

November, 1988

DISTRICT	Service: 35+	34	33	32	31	30	TOTAL	Service: 29	28	27	26	25	TOTAL	ACCUM. TOTAL	Service: 24	23	22	21	20	TOTAL	ACCUM. TOTAL	Service: 19	18	17	16	15	TOTAL	ACCUM. TOTAL	Under 15	FUL. ACCUM. TOTAL
6	1						1		1				1	2							2									2
7																														
8	1	5	2	6	4	3	21	8	5	8	14	8	43	64	7	9	18	12	11	57	121	14	14	8	10	7	53	174		174
9		1	5	1	2	1	10	1		1	2	2	6	16	2	4	7	2	4	19	35	9	4	3	5	5	26	61		61
10	1		3	2	4	4	14	5	7		7	6	25	39	8	8	8	4	5	33	72	9	10	14	10	9	52	124		124
14	1		1		2	3	7	1	4	4	5	2	16	23	4	5	6	4	7	26	49	4	14	6	3	5	32	81		81
15	1	4	7	8	3	14	37	10	11	20	18	24	83	120	19	23	18	27	25	112	232	22	53	46	35	19	175	407		407
16	1		1	1	1	2	6	1	3	4	3		11	17	4	3	7	4	5	23	40	5	6	7	4	5	27	67		67
17	1		3				4	2	1	1	1	2	7	11	2	1	3		1	7	18	1	4	2	6	4	17	35		35
18			2	3	1	5	11	2	2	3	2	7	16	27	5	3	5	7	9	29	56	4	11	8	3	5	31	87		87
19	2		1	1	4	5	13	3	4	4	5	10	26	39	4	10	5	14	17	50	89	15	23	17	12	20	87	176		176
20	9	6	7	7	14	15	58	22	24	23	26	19	114	172	35	26	41	46	52	200	372	54	35	48	50	48	235	607		607
21		2		1	1		4		2	3	1	3	9	13	3	6	4	1	3	17	30	2	7	6	1	3	19	49		49
22						1	1	1	1	1	1		4	5	2		1	2	2	7	12	1	2	1		1	5	17		17
23	1			2	4	4	11	6	4	3	5		18	29	5	6	11	5	8	35	64	7	5	9	9	8	38	102		102
24				1		2	3	2	2	5	3	4	16	19	2	2	2	4	9	19	38	5	5	8	6	11	35	73		73
25	1	2		7	4	3	17	5	9	8	4	5	31	48	12	9	5	9	21	56	104	17	11	6	12	6	52	156		156
26	4	2	8	4	6	8	32	8	11	14	15	13	61	93	16	27	28	20	32	123	216	15	22	32	28	18	115	331		331
27	1	2		1	1	1	6	1		3	3	2	9	15	1		3	1	1	6	21	2	1			2	5	26		26
28			1		1	1	3		1	2	1	6	10	13	3	3	4	3	3	18	31	3	9	10	4	9	35	66		66
29		1	3	1	2	1	8	3	3	2	5	2	15	23	5	2	4	8	5	24	47	6	4	4	5	14	33	80		80
30	1	2		3		2	8	3	3	6	6	3	21	29	5	5	7	4	3	24	53	7	4	5	5	5	26	79		79
31	2		1	3	1	1	8	1	3	4		2	10	18	2	2	3	7	5	19	37	6	5	4	6	6	26	64		64
32															1					1	1							1		
33						1	1	2					2	3	3	1	4	1	1	10	13	1	1	3	3	1	9	22		22
36		1					1	2	2	1	2	4	11	12	6	5	2	6	1	20	32	6	6	3	6	6	27	59		59
38	1		1	1	2	1	6		1	4	2	3	10	16	4	2	2	7	7	22	38	7	9	5	5	3	29	67		67
39																		1		1	1							1		
40		1					1			1	2		3	4	1	1	3	2	4	11	15	1	5	4	2	2	14	29		29
41			1				1							1							1							1		
42	2		3	1	2		8	2	6	3	7	7	25	33	1	7	14	11	10	43	76	6	7	11	10	6	40	116		116
50					1	1	2		1		1	1	3	5	2			2	2	6	11	1	1	3	3	2	10	21		21
54		1					1							1							1							1		
TALS	31	30	50	54	60	79	304	91	111	128	141	135	606	910	166	170	215	214	253	1018	1928	230	278	273	243	230	1254	3182	2277 ÷	3182 = 54.5
							5.6%						11.1%	16.7%						18.6%	35.3%						22.9%	58.3%	41.7%	58.3%

YEARS SERVICE — PRINCIPALS

NOVEMBER, 1988

DISTRICT	Service: 35+	34	33	32	31	30	TOTAL	Service: 29	28	27	26	25	TOTAL	ACCUM. TOTAL	Service: 24	23	22	21	20	TOTAL	ACCUM. TOTAL	Service: Under 20	FINAL ACCUM. TOTAL
6																							
7																							
8		1					1	1		1		2	4	5					2	2	7		7
9			1				1			1			1	2		1	1		2	4			4
10					1		1				1		1	2	3	1	1			5	7		7
14			1		1	1	3			1			1	4				1		1	5		5
15		1	1				2			3	3	3	9	11	1	3	3	1		8	19		19
16									2				2	2			1	1		2	4		4
17	1						1		1				1	2							2		2
18					1	1	2	2				1	3	5							5		5
19			1		2	1	4	1	1			2	4	8	2		1	1	2	6	14		14
20	2	2	1	1	2	2	10	2	3	1	3	2	11	21	3	5	1	5	4	18	39		39
21		1			1		2		1				1	3		1				1	4		4
22																	1	1		2	2		2
23					2		2	1	1	1	1		4	6					1	1	7		7
24						1	1							1					1	1	2		2
25				2			2		2	3	1	1	7	9	1				1	2	11		11
26		1	4			3	8	1	2				3	11	2		2	2	2	8	19		19
27		1				1	2					1	1	3							3		3
28						1	1					1	1	2	1				1	2	4		4
29								1	1	1	1		4	4					1	1	5		5
30						1	1		1		1		2	3		1	1	1		3	6		6
31	1						1		2	1			3	4			1		1	2	6		6
33																							—
36								1					1	1		1				1	2		2
38	1				1		2					1	1	3					1	1	4		4
40											1		1	1					1	1	2		2
42	1		1	1			3		1		1		2	5			1	2		3	8		8
50						1	1							1							1		1
54																							
TOTALS	6	7	10	4	11	13	51	10	18	13	13	14	68	119	13	13	14	15	18	73	192	81	192-(.273)
							18.7%						24.9%	43.6%						26.7%	70.3%	29.7%	70.3%

Appendix "O"

YEARS SERVICE — VICE-PRINCIPALS

NOVEMBER, 1988

DISTRICT	Service: 35+	34	33	32	31	30	TOTAL	Service: 29	28	27	26	25	TOTAL	ACCUM. TOTAL	Service: 24	23	22	21	20	TOTAL	ACCUM. TOTAL	Service: Under 20	FINAL ACCUM. TOTAL
6																							
7																							
8				1		1	2				3	1	4	6	1				1	1	7		8
9																	1			1	1		1
10						1	1					1	1	2		2				2	4		4
14												1	1	1		1			1	2	3		3
15			2			1	3		1	1	1	3	6	9	1	2		1	1	5	14		14
16																							
17																							
18																		1	1	2	2		
19					1		1					1	1	2		2			2	4	6		6
20	1				1	1	3				2	4	6	9	2		3	2	3	10	19		19
21															1					1	1		1
22								1					1	1							1		1
23						2	2			1			1	3	2		1			3	6		6
24																			1	1	1		1
25				1			1		1	2	1		4	5			1	1	2	4	9		9
26					3		3				1		1	4		2	1		1	4	8		8
27												1	1	1			1			1	2		2
28					1		1					1	1	2	1	1		1		3	5		5
29															2				1	3	3		3
30	1						1							1	1	1		1		3	4		4
31										1			1	1				1		1	2		2
33																							
36												1	1	1	1		1	1		3	4		4
38																		1	1	2	2		2
40																		1		1	1		1
42												1	1	1					1	3	4		4
50																							
54																							
TOTALS..	2	—	2	2	6	6	18	1	2	5	8	15	31	49	12	12	10	11	16	61	110	98	110=(208)
							8.7%						14.9%	23.6%						29.3%	52.9%	47.1%	52.9%

Appendix "P"

YEARS SERVICE — DEPARTMENT HEADS

NOVEMBER, 1988

DIST.	Service: 35+	34	33	32	31	30	TOTAL	Service: 29	28	27	26	25	TOTAL	ACCUM. TOTAL	Service: 24	23	22	21	20	TOTAL	ACCUM. TOTAL	Service: Under 20	FINAL ACCUM. TOTAL
6																							
7																							
8								1	1		2		4	4		1	1	2	1	5	9	6	15
9																							
10				1	1		2	1	1				2	4							4	2	6
14													4	4		1	1			2	2	2	4
15								1		2		1	3	4	1		1	1	2	5	9	9	18
16						1	1		1	1	1					1	1			2	6	3	9
17																						1	1
18				1			1				1	1	2	3							3	2	5
19											1	1	2	2	3			2	2	7	9	5	14
20						1	1		4	1	2	2	9	10	4	1	3	3	5	16	26	17	43
21										1			1	1	1		2			3	4	2	6
22																							
23									1				1	1			2	1		3	4		4
24								1	1				2	2	1					1	3	1	4
25				1	1		2	2	1				3	5	2	1			2	5	10	3	13
26	2						2		1		2	3	6	8		1			1	2	10	5	15
27																							
28										1			1	1		1				1	2	2	2
29											1	1	2	2							2		2
30																							
31																						1	1
33								1					1	1							1		1
36															1				1	2	2	5	7
38															2			1		3	3	1	4
40																	1			1	1	5	6
42												1	1	1			1			1	2	3	5
50																							
54																							
TOTALS	2			3	2	2	9	7	11	6	10	10	44	53	15	6	14	10	14	59	112	73	185
							4.9%						23.8%	28.6%						31.9%	60.5%	39.5%	

Appendix "Q"

YEARS SERVICE — CO-ORDINATORS

NOVEMBER, 1988

DISTRICT	Service: 35+	34	33	32	31	30	TOTAL	Service: 29	28	27	26	25	TOTAL	ACCUM. TOTAL	Service: 24	23	22	21	20	TOTAL	ACCUM. TOTAL	Service: Under 20	FINAL ACCUM. TOTAL
6																							
7																							
8								1				1	2	2			1			1	3		3
9																							
10																						1	1
14												1	1	1	1			1		2	3	2	5
15						1	1							1		2		1		3	4	4	8
16																						1	1
17																							
18						1	1							1					1	1	2	1	3
19						1	1					1	1	2							2	4	6
20						1	1		1	1			2	3							3	5	8
21		1					1							1							1	2	3
22																							
23								1					1	1							1		1
24																							
25																						1	1
26						2	2							2					1	1	3	2	5
27																							
28																							
29																	1			1	1	2	3
30																							
31																							
33																						1	1
36																	1			1	1		1
38																			1	1	1	1	2
40																						2	2
42			1				1					1	1	2	1					1	3	3	6
50																							
54																							
TOTALS	—	1	1	—	—	6	8	2	1	1	—	4	8	16	2	2	3	2	3	12	28	32	60
							13.3%						13.3%	26.7%						20.0%	46.7%	53.3%	

Appendix "R"

KBTA MEMBERS -- AGE AND DISTRICT September, 1988

DISTRICT	Ages: 60+	59	58	57	56	55	TOTAL	Ages: 54	53	52	51	50	TOTAL	ACCUM. TOTAL	Ages: 49	48	47	46	45	TOTAL	ACCUM. TOTAL	Ages: 44	43	42	41	40	TOTAL	ACCUM. TOTAL	Ages: 39	38	37	36	35	TOTAL	TOTALS
6	—	—	—	—	—	—	—	—	1	—	1	—	2	2	—	—	—	—	—	—	2	—	—	—	—	—	2	—	—	—	—	—	—	2
7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	1	—	3	—	2	1	7	3	5	13	5	10	36	43	9	9	16	14	5	53	106	8	15	12	13	14	62	158	13	11	13	6	5	48	206
9	—	1	—	1	—	—	2	3	2	3	1	—	9	11	2	1	4	1	5	13	24	7	3	5	7	3	25	49	6	6	2	4	4	22	71
10	1	4	1	2	1	3	12	2	1	3	5	4	15	27	5	4	5	5	8	27	54	12	4	8	8	8	40	94	13	15	9	11	10	58	152
14	1	2	1	2	—	1	7	3	2	3	4	4	16	23	2	4	4	7	3	20	43	6	6	6	6	11	35	78	13	3	6	5	3	30	108
15	2	3	8	5	8	6	32	7	10	17	11	16	61	93	22	20	14	21	38	115	208	31	24	27	39	50	171	379	41	41	39	44	27	192	571
16	1	1	—	—	1	2	5	1	1	3	6	2	13	18	7	3	4	2	3	19	37	1	4	9	7	4	25	62	3	6	13	6	4	32	94
17	2	1	—	1	1	—	5	—	—	3	1	1	5	10	—	1	3	1	—	5	15	4	1	3	4	3	15	30	3	4	3	2	2	14	44
18	1	—	1	—	1	2	5	—	2	2	6	5	15	20	4	6	3	8	6	27	47	4	5	6	7	14	36	83	7	5	5	3	12	32	115
19	1	—	—	2	4	2	9	—	2	3	4	11	20	29	6	10	17	12	9	54	83	18	10	16	18	25	87	170	18	21	25	34	25	113	283
20	12	7	7	8	9	12	55	8	14	8	23	27	80	135	31	29	38	38	38	174	309	49	39	55	45	39	227	536	58	44	45	33	39	221	757
21	—	—	—	1	1	—	2	2	2	—	—	4	8	10	1	2	1	2	5	11	21	4	4	4	8	7	27	48	3	5	3	5	6	22	70
22	1	1	—	—	—	—	2	1	—	1	2	2	6	8	1	2	1	—	—	4	12	—	3	3	2	1	9	21	1	1	—	—	1	3	24
23	2	—	—	2	2	1	7	2	—	4	5	2	13	20	8	7	2	8	9	34	54	9	8	9	5	11	42	96	9	6	14	4	7	40	136
24	—	—	1	—	1	—	2	1	1	2	4	4	12	14	2	3	4	5	7	21	35	—	3	5	9	7	24	59	10	11	5	4	7	37	96
25	—	2	—	3	—	—	5	4	7	8	10	5	34	39	12	5	4	9	8	38	77	13	10	9	15	23	70	147	10	14	10	5	11	50	197
26	3	—	1	4	3	3	16	11	16	10	17	11	65	81	16	17	18	22	25	98	179	37	16	35	30	27	145	324	24	24	31	25	15	119	443
27	1	—	—	2	1	1	5	1	1	2	1	—	5	10	1	2	3	1	4	11	21	—	—	3	4	1	8	29	2	—	1	—	3	6	35
28	1	1	—	—	—	—	2	1	1	1	2	1	6	8	2	5	3	2	2	14	22	6	7	2	6	6	27	49	14	8	6	5	2	35	84
29	2	1	—	—	—	—	3	1	4	2	7	2	16	19	3	1	5	3	5	17	36	4	8	8	7	7	34	70	9	6	6	6	3	30	100
30	1	2	2	1	3	1	10	2	4	1	1	1	9	19	4	4	2	6	4	20	39	2	5	10	8	3	28	67	4	7	9	6	7	33	100
31	2	—	1	2	2	1	8	3	3	2	1	4	13	21	—	4	2	5	5	16	37	2	5	6	5	8	26	63	3	6	6	4	7	26	89
32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—	1
33	—	—	—	—	—	—	—	—	—	—	1	1	2	2	1	1	—	4	2	8	10	4	3	—	2	3	12	22	—	—	1	—	—	1	23
36	1	—	2	—	2	2	7	2	4	—	1	1	8	15	2	2	5	1	4	14	29	5	4	2	5	6	22	51	3	6	9	6	7	33	84
38	—	—	—	1	2	1	4	—	3	4	1	1	9	13	2	5	6	3	4	18	31	3	2	7	11	2	25	56	8	11	3	8	3	33	89
39	1	—	—	—	—	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	1	1
40	1	—	—	—	—	—	1	1	1	—	2	1	5	6	—	1	1	3	1	6	12	—	2	3	3	5	13	25	3	6	5	1	3	18	43
41	—	—	—	—	—	—	—	—	1	—	—	—	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	1	1
42	—	1	—	—	—	1	2	2	5	4	5	5	21	23	7	10	7	10	9	43	66	9	7	11	12	9	48	114	6	9	5	7	7	34	148
50	—	—	—	—	—	—	—	—	—	1	1	—	2	2	1	2	—	2	1	6	8	2	2	2	1	4	11	19	2	2	1	2	1	8	27
54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	3	3	—	—	—	—	—	—	3	—	—	2	—	—	2	5
TOTALS	40	27	28	37	44	40	216	61	93	100	128	125	507	723	151	161	170	197	211	890	1613	240	200	266	287	301	1294	2907	288	282	275	226	221	1292	4199
							5%						9.5%	13%						16.1%	28%						23.5%	52%						23.5%	74%

N.B.T.A. MEMBERS

AVERAGE AGES

as of January 10, 1989

Position	Average Age
Principals	45.9
Vice-Principals	43.8
Department Heads	45.5
Subject Coordinators	44.3

(NBTA MEMBERSHIP REGISTRATION, October, 1988)

PROVINCIAL TOTALS:

	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	N/R	TOT	S.D.	AVG. AGE	% OVER 50	% OVER 55	% OVE 60
FR	73	57	50	46	52	39	24	24	17	15	2	2	1	3	1	0	18	2643	FR	41	12.60%	3.37%	0.2
AN	121	96	82	72	46	59	45	44	25	27	18	16	11	9	8	2	12	5427	AN	40	10.32%	3.78%	0.8
PR	194	153	132	118	98	98	69	68	42	42	20	18	12	12	9	2	30	8070	PR	40	11.07%	3.64%	0.6

(Planning and Services Division
Department of Education
New Brunswick)

UNIVERSITY OF NEW BRUNSWICK

FACULTY OF EDUCATION

BACHELOR OF EDUCATION GRADUATES

Year	Curriculum and Instruction				Vocational Education				Ed. Found.	Totals
	Elem.	Sec. Arts	Sec. Sci.	Sec. P.E.	Bus.	H.E.	Ind.	Voc.	One Year B. Ed.	
1988	66	29	7	15	10	11	7	11	22[b]	178
1987	93	34	6	17	24	12	11	9	46	252
1986	84	36	4	24	18	8	16	19	48	257
1985	94	33	2	20	13	6	13	20	51	252
1984	111	17	4	16	14	9	6	27	50	254
1983	73	26	1	19	13	16	9	17	97	271
1982	69	28	2	22	12	9	9	17	81	249
1981	86	29	4	33	19	11	10	5	86	283
1980	82	45	3	34	25	13	15	11	95	323
1979	84	40	5	32	22	19	12	4	89	307[c]
1978	92	31	3	53	24	10	24	10	116	363[c]
Totals	934	348	41	285	194	124	132	150		
		1608				600			781	2989

[a]U.N.B. Registrar's Office data

[b]Until recently, the Post-degree B. Ed. program was available to licensed teachers as well as those preparing for initial entry into teaching. Licensed teachers were required to complete their programs by September, 1987. The total for 1988 is the first which does not include graduates who are not already in the teaching force.

[c]U.N.B. did not hold Fall Convocations in 1977 and 1978. Degree candidates who completed their programs in the Autumns of these two years graduated at the following Spring Encaenias.

Dr. Ken Cameron, University of New Brunswick, January, 1989

SAINT THOMAS UNIVERSITY

BACHELOR OF EDUCATION GRADUATES

1988	-	63
1987	-	62
1986	-	56
1985	-	45
1984	-	62
1983	-	59
1982	-	75
1981	-	47
1980	-	55
1979	-	59
1978	-	9
		592

Dr. Ken Cameron, University of New Brunswick, January 1989

SUPERINTENDENTS, ASSISTANT SUPERINTENDENTS & SUPERVISORS (ENGLISH)
BY ELIGIBILITY YEAR FOR RETIREMENT

ENGLISH DISTRICTS ONLY

YEAR	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Superintendent	3	-	1	-	-	3	1	1	2	2	2	1	1	-	3	-	1	1	22
Assistant Superintendent	1	1	1	-	1	2	-	-	1	2	1	1	-	-	1	-	-	1	13
Supervisor	2	2	2	1	1	1	3	1	2	3	2	2	-	3	1	2	1	2	31
TOTALS..	6	3	4	1	2	6	4	2	5	7	5	4	1	3	5	2	2	4	66

NBTA PENSION STATISTICS -- January, 1989

APPENDIX "..."

TEACHER SHORTAGES IN THE 1990'S? CAUSES AND POSSIBLE SOLUTIONS

A combination of demographic and economic influences are causing shortages of qualified teachers in subject areas such as mathematics, science, French as a second language, and special education. These selective shortages are expected to grow over the next few years into more generalized shortages by the mid to late 1990's as the demographic sources of demand and supply move in opposite directions and other factors threaten the attractiveness of teaching as a career. Needless to say, the timing and extent of teacher shortages will vary considerably among and within provinces due to variations in both demographic and labour market conditions in different regions and communities.

There is a wide variety of potential ways to alleviate developing teacher shortages and, in the longer term, to smooth out the successive cycles of surplus and shortage which characterize the labour market for teachers in Canada. A few of these policy alternatives could improve the intrinsic and extrinsic rewards of teaching, strengthen the teaching profession and improve learning results, while others, especially some which were used to meet past teacher shortages, would have opposite consequences.

The Demand for Teachers

After 15 years of decline, school enrolments in Canada have begun to increase and this so-called echo of the post war baby boom or baby boomlet will continue until the late 1990's. According to CTF projections, total elementary and secondary enrolments, which declined from 5.7 to 4.6 million between 1970-71 and 1985-86 for a loss of nearly 18 per cent, will rebound to about 5.0 million in 1999-2000 for a gain of nearly 8 per cent (Table 1, Section A). By province, the baby boomlet will lead to enrolment increases varying by province from 1.3 to 16.6 per cent and peak years will vary by province from 1994-95 to 2004-05.

This expected increase in enrolments which has already begun, coupled with a continuation of the long-term gradual decline in pupil teacher ratios, is expected to generate increases in the total demand for elementary and secondary teachers. Based on CTF estimates, it is expected that the total teaching force in Canada which declined from 272,500 in 1976-77 to 251,800 in 1985-86, could increase to 284,550 in 1999-2000 (Table 1, Section B). To the extent that pupil teacher ratios do not continue to decline through the 1990's, increases in total teacher demand will fall below the level suggested above for 1999-2000 but probably approach that for 1976-77.

Of even greater importance than enrolment increases as a source of teacher demand in the 1990's and the first five years or so of the 21st century will be a dramatic increase in the numbers and proportion of the existing teaching force who will be eligible to retire. The 1960's and early 1970's were the years of most rapid growth in the Canadian teaching force. Between 1966-67 and 1970-71, 86,000 new teachers were recruited from educational institutions (Table 2, Section B). In the previous and subsequent five year periods teacher recruitment was almost as impressive, with 60,000 new teachers recruited in each interval.

Most of the roughly 200,000 teachers recruited during the 1960's and early 1970's will be eligible to retire between about 1990-91 and 2005-06. As a result, we can expect a dramatic increase in percentages of the teaching force who must be replaced each year during the 1990's. Replacement hirings between 1980-81 and 1986-87 as percentages of the total teaching force in nine provinces excluding Quebec averaged 6.75 per cent per year (Table 3). As a result of the upsurge in teacher retirements, the replacement rate can be expected to almost double to 12 per cent by the late 1990's — equivalent to levels of the late 1960's. Based on CTF estimates of the total teaching force, the replacement demand for Canada could reach 37,000 in 1999-2000, the expected peak year for total teacher demand.

The Supply of Teachers

There are two main sources of teachers: (1) newly qualified graduates from educational institutions; and (2) the pool of former teachers, certified teachers who have never taught and qualified university graduates who might be attracted to teaching. It is the existence of this reserve pool of qualified teachers and others who could become qualified, many times larger than the current crop of graduates, which makes predictions of teacher supply very risky. The actual availability of the reserve pool to supply current needs depends on many factors which cannot be predicted and comes down ultimately to personal choice.

Concerning new graduates, over most of the 1990's when elementary and secondary enrolments will be increasing and teacher retirements are expected to accelerate, the 20-24 year olds, the age group from which most new teachers are recruited, will decline sharply. The number of 20 to 24 year olds in Canada peaked at 2.4 million in 1984-85 and is expected to decline to 1.9 million or by 22 per cent by 1997-98 (Table 4, Section A).

In 1984-85, when 20-24 year olds were most numerous, there were 15,413 new bachelor's and first professional degrees in education in Canada or 0.641 per cent of the relevant age group (Table 4, Sections C and D). If the same share of 20-24 year olds graduate in education in 1999-2000 the number will be only 12,100. Even if the same share of 20-24 year olds who graduated in education in

the peak year for bachelor's first professional degrees in education, 1976-77, could be graduated in 1999-2000 (i.e. 19,775 or 0.927 per cent of 20-24 year olds), only 17,500 newly qualified teachers would be graduated in that year. Based on the estimated replacement demand of 37,000 as a result of retirements quoted above, there could be a shortfall of between 17,500 and 25,000 teachers in 1999-2000 which would have to be attracted mainly from the reserve pool of existing teachers.

From the mid 1970's and the mid 1980's, when the total supply of teachers in Canada exceeded demand, between 6,000 and 9,000 newly qualified teachers per year failed to obtain teaching positions in the nine provinces excluding Quebec (Table 2, Section C and Chart 1). This growing body of recent education graduates — 85,000 between the mid 1970's and 1980's — makes up the largest share of the reserve pool of teachers qualified to teach in earlier years. It is virtually impossible to know how many of these people are now and will continue to be ready, willing and able to meet the present or future demand for teachers. Much depends on the relative attractiveness of teaching and other careers and whether education graduates of earlier years possess the specific teaching skills in greatest demand.

Between the mid 1970's and the mid 1980's bachelor's and first professional degrees in education declined as a share of total university graduates in all provinces from 22.64 per cent in 1976-77 to 15.63 per cent in 1985-86 (Table 4, Section E). While the accumulating teacher surpluses had a major influence on this trend, other market forces seem to have reduced the attractiveness of teaching relative to other occupations and we can expect some of these influences to continue and perhaps become stronger in the future.

There is a wider spectrum of lucrative fields of activity now open to a wider range of university graduates who would have chosen teaching in the past. Academically talented women, in particular, have shifted their choice of university studies away from education, English and social sciences to business, commerce, law and medicine and there has been a dramatic improvement of career opportunities for women in these fields which seems likely to continue.

Alternative Solutions for Imbalances

The fundamental problem of the labour market for teachers in Canada is one of continual imbalances — alternating cycles of shortage and surplus — where overreaction to one extreme brings on the other. Enrolment trends and teacher retirements will lead to increased demand for teachers in the 1990's at a time when demographic and other influences carried over from the era of teacher surpluses are converging and will discourage qualified people from entering and remaining in teaching.

From the perspective of the extrinsic rewards of teaching, mainly take home pay, the evolving labour market for teachers in the 1990's sounds ideal: increasing enrolments require more teachers; more teachers eligible for retirement require more replacements; and more attractive career possibilities, for women in particular, reduce the supply of prospective teachers. In short, teachers will be in heavier demand and shorter supply. In a free labour market, the price of labour will rise in order to attract sufficient labour to satisfy demand. Teachers' salaries should rise in order to maintain an adequate supply of qualified teachers.

Large scale teacher retirements such as we face in the 1990's provide good opportunities for the restructuring of teacher compensation. Much of the cost of improving teacher salaries and relative economic status by whatever means can be absorbed as the most experienced teachers are replaced by less experienced ones. As well, it is more feasible to restructure both compensation and other aspects of the profession when a major change in the work force is occurring.

Among the alternative compensation measures for ensuring an adequate supply of qualified teachers during times of teacher shortage are the following: increases in beginning salaries, probably with corresponding increases for all teachers; differentiated salaries or bonuses for skills in short supply (e.g. math, science or French second language teachers); increases in the lifetime earnings of teachers which, in contrast to entry-level salaries, are dramatically lower than those of other occupations requiring university graduation (e.g. increased salaries for experienced teachers, merit pay, career ladder plans). While some of these compensation alternatives for improving teacher supply might be rejected by teachers on principle and by politicians and administrators on grounds of costs, they are preferable to most of the non-compensation alternatives.

Historically, provincial authorities who control teacher preparation and are the ultimate employers of teachers have not dealt with teacher shortages by improving salary levels. To solve the problem of teacher shortages during the 1940's and 1950's the technique adopted was to reduce or virtually eliminate entrance and training requirements in order to staff the schools at existing salary levels with only limited regard for long term consequences for learners and the quality of the teaching profession. Unlike enterprises where the erosion of labour quality is likely to result in immediate, measurable deterioration of results, the adverse consequences of diluting the quality of teachers are sequential, cumulative and long-term, probably lasting the lifetimes of the students involved.

Among measures which have been used to reduce teacher demand or increase teacher supply without increasing teacher compensation levels are the following:

Measures which reduce teacher demand

- increase pupil teacher ratios
- substitute lower paid workers for teachers (i.e. teacher aids and paraprofessionals to permit larger classes)
- substitute physical capital (i.e. technology) for human capital
- introduce more unpaid volunteers into the classrooms

Measures which increase teacher supply

- dilute and reduce certification requirements
- assign teachers outside their fields of academic study or certification
- hire more part-time teachers

Some of these techniques were used during the era of teacher surpluses, mainly for cost cutting reasons, and we can expect their use to be stepped up when widespread teacher shortages develop in the 1990's.

One of the most effective and least controversial ways to improve the operation of the labour market for teachers would be the collection of better statistics on both teacher shortages and surpluses in order to permit better forecasting of future imbalances in the teacher labour market. Despite dramatic improvements in data processing in recent years, the national teacher data base maintained by Statistics Canada was largely eliminated after 1985-86 for political reasons and due to user apathy.

With adequate information about the sources of supply and demand for teachers, by teaching specialty, by teaching level, and by province, all of the partners in the education enterprise would be able to cooperate and consider how individual labour markets for teaching specialties could be managed to avoid excessive imbalances. Specifically, the education industry would be able to undertake ongoing studies of its present and future manpower situation and plan through consultation with all parties, the changes in teacher education and compensation needed to bring teacher supply and demand into better balance.

TABLE 1. Expected Impact of the Baby Boom and its Echo on Elementary and Secondary Enrolments and the Teaching Force, by Province, 1968-69 to 2004-05

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
ELEMENTARY-SECONDARY ENROLMENTS													
A. Peak Baby Boom Enrolments													
Enrolment	162.8	30.6	214.9	176.0	1,589.0	2,031.4	246.9	249.9	441.1	549.0	5.4	12.9	5,655.1
Year	'71-72	'71-72	'70-71	'71-72	'68-69	'71-72	'69-70	'69-70	'76-77	'73-74	'77-78	'76-77	'70-71
B. Lowest Expected (or Actual) Enrolments Following Peak Baby Boom Enrolments													
Enrolment	134.6	24.4	164.3	133.4	1,035.8	1,759.5	199.0	201.1	434.4	486.3	4.5	12.3	4,646.4
Year	'91-92	'90-91	'92-93	'94-95	'87-88	'84-85	'86-87	'83-84	'79-80	'86-87	'89-90	'90-91	'85-86
%Decrease	-17.3%	-20.3%	-23.5%	-24.2%	-34.8%	-13.4%	-19.4%	-19.5%	-1.5%	-11.4%	-16.1%	-4.7%	-17.8%
C. Expected Peak Enrolments After Baby Boom Echo													
Enrolment	148.0	25.7	166.5	135.4	1,068.7	1,987.2	207.3	234.4	502.1	545.4	5.0	12.4	5,003.9
Year	'04-05	'03-04	'99-00	'01-02	'94-95	'00-01	'98-99	'03-04	'98-99	'99-00	'96-97	'96-97	'99-00
% Increase	9.96%	5.52%	1.34%	1.46%	3.18%	12.94%	4.19%	16.57%	15.59%	12.16%	10.21%	1.15%	7.69%
THE TEACHING FORCE													
A. Peak Teaching Force After Baby Boom													
Teachers	8,178	1,444	10,785	7,869	77,238	96,850	11,570	10,832	24,310	26,933	279	729	272,462
Year	'83-84	'75-76	'78-79	'75-76	'76-77	'76-77	'78-79	'78-79	'83-84	'81-82	'81-82	'79-80	'76-77
B. Lowest Expected (or Actual) Teaching Force After Baby Boom													
Teachers	8,021	1,265	9,896	7,312	59,227	91,385	11,175	10,540	23,868	23,719	251	638	251,829
Year	'87-88	'90-91	'90-91	'84-85	'86-87	'82-83	'80-81	'84-85	'86-87	'85-86	'82-83	'83-84	'85-86
% Decrease	-1.9%	-12.4%	-8.2%	-7.1%	-23.3%	-5.6%	-3.4%	-2.7%	-1.8%	-11.9%	-10.0%	-12.5%	-7.6%
C. Expected Peak Teaching Force After Baby Boom Echo													
Teachers	9,380	1,373	10,413	7,732	63,031	110,891	12,911	13,099	28,401	28,010	322	720	284,549
Year	'04-05	'04-05	'01-02	'02-03	'95-96	'01-02	'98-99	'03-04	'99-00	'99-00	'96-97	'87-88	'99-00
% Increase	16.94%	8.54%	5.22%	5.74%	6.42%	21.34%	15.53%	24.28%	18.99%	18.09%	28.29%	12.85%	12.99%

Source: Canadian Teachers' Federation, Projections of Elementary and Secondary Enrolments and the Teaching Force in Canada, 1987-88 to 2006-07, forthcoming publication.

Table 2. Bachelor's and First Professional Degrees in Education, Recruitment from Educational Institutions and Excess of Graduates Over Recruits, by Province/Territory, Excluding Quebec, Five-Year Intervals, 1956-57 to 1985-86

	Atlantic Region							Western Canada							
	Nfld.	P.E.I.	N.S.	N.B.	Sub-Total	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Sub-Total	Yukon	N.W.T.	Canada
A. Bachelor's and First Professional Degrees in Education															
1956-57 to 1960-61	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1961-62 to 1965-66	•	•	•	•	2,775	•	1,068	•	•	•	•	7,789	•	•	11,612
1966-67[1] to 1970-71	1,502	156	2,513	2,078	7,177	•	5,586	1,666	2,976	6,508	3,923	17,668	•	•	26,908
1971-72 to 1975-76	3,317	500	4,246	4,876	12,939	•	24,173	4,989	4,574	11,133	5,788	26,484	•	•	63,596
1976-77 to 1980-81	2,886	290	4,142	4,282	11,600	•	30,137	4,849	5,130	10,764	5,561	26,304	•	•	68,041
1981-82 to 1985-86	3,154	219	2,824	2,762	8,959	•	26,870	3,792	5,137	9,232	4,652	22,813	•	•	58,642
B. Recruitment from Educational Institutions															
1956-57 to 1960-61	3,644	473	2,027	2,541	8,685	•	3,337	3,037	3,752	3,054	3,794	13,637	•	•	25,659
1961-62 to 1965-66	5,701	383	2,738	1,968	10,790	•	25,705	4,935	6,808	6,946	6,776	25,465	•	•	61,960
1966-67 to 1970-71	5,662	688	4,559	4,182	15,091	•	37,097	6,660	7,036	10,787	9,291	33,774	•	•	85,962
1971-72 to 1975-76	4,518	504	3,694	2,677	11,393	•	22,136	4,486	4,325	7,947	8,510	25,248	52	163	59,483
1976-77 to 1980-81	1,834	266	1,536	1,139	4,775	•	9,432	2,671	3,118	5,900	5,952	17,641	115	337	32,261
1981-82 to 1985-86	1,680	120	434	696	2,930	•	5,030	1,837	2,251	3,679	2,064	9,831	74	237	18,287
C. Excess of Graduates Over Recruitment															
1956-57 to 1960-61	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1961-62 to 1965-66	•	•	•	•	(5,910)	•	(2,269)	•	•	•	•	(5,868)	•	•	(14,047)
1966-67 to 1970-71	(4,160)	(532)	(2,046)	(2,104)	(7,914)	•	(31,511)	(4,994)	(4,060)	(4,279)	(5,368)	(16,106)	•	•	(59,054)
1971-72 to 1975-76	(1,632)	(214)	448	1,805	207	•	8,001	383	805	2,817	(2,949)	1,056	(52)	(163)	8,555
1976-77 to 1980-81	1,052	24	2,606	3,143	6,825	•	20,705	2,178	2,012	4,864	(391)	8,663	(115)	(337)	35,757
1981-82 to 1985-86	1,474	99	2,390	2,066	6,029	•	21,840	2,155	2,886	5,353	2,588	12,982	(74)	(237)	40,359

1 - Excludes 1966-67 at provincial level, regional total's include 1966-67.

Sources: Statistics Canada, Characteristics of Teachers in Public Elementary and Secondary School, Catalogue 81-202 Annual, relevant issues.
Statistics Canada, Universities, Enrolment and Degrees, Catalogue 81-204 Annual, relevant issues.
Statistics Canada, Education in Canada, Catalogue 81-229 Annual, relevant issues.

TABLE 3. Enrolment, the Teaching Force and Replacement Hirings, Nine Provinces, Excluding Quebec, 1967-68 to 1985-86

School Year	Enrolment	PTR	Teaching Force	LOSSES (Total Replacement Hirings)	LOSSES/ Replacements as % of Employed
1967-68	3,758,536	23.58	159,393	9,546	5.99%
1968-69	3,884,143	22.89	169,720	21,623	12.74
1969-70	3,990,082	22.27	179,143	23,948	13.37
1970-71	4,066,337	22.08	184,124	24,103	13.09
1971-72	4,071,844	22.17	183,680	21,805	11.87
1972-73	4,055,739	21.68	187,097	20,565	10.99
1973-74	4,028,367	21.82	184,651	20,125	10.90
1974-75	3,996,369	21.02	190,166	19,691	10.35
1975-76	3,997,105	20.57	194,340	18,212	9.37
1976-77	3,963,496	20.30	195,224	16,790	8.60
1977-78	3,917,770	19.98	196,047	15,138	7.72
1978-79	3,843,875	19.85	193,600	15,390	7.95
1979-80	3,770,159	19.60	192,331	14,827	7.71
1980-81	3,723,777	19.47	191,239	15,052	7.87
1981-82	3,670,993	19.04	192,826	14,090	7.31
1982-83	3,652,161	19.06	191,626	13,610	7.10
1983-84	3,634,315	18.92	192,123	11,731	6.11
1984-85	3,605,401	18.94	190,353	12,141	6.38
1985-86	3,604,959	18.83	191,431	11,731	6.13

Sources: Statistics Canada, Characteristics of Teachers in Public Elementary and Secondary Schools, Catalogue 81-202 Annual, relevant issues.
Canadian Teachers' Federation, Projections of Elementary and Secondary Enrolment and the Teaching Force in Canada, 1987-88 to 2006-07, January 1989.

Table 4. (A) 20-24 Year Olds, Including Projections to 2006-07, (B) Total Bachelor's and First Professional Degrees, (C) Bachelors and First Professional Degrees in Education, (D) Ratio of Total Bachelor's and First Professional Degrees in Education to the 20-24 Age Group, and (E) Ratio of Bachelor's and First Professional Degrees in Education to Total Graduates (%), All Provinces/Territories, 1967-68 to 1985-86

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	CANADA
A. 20-24 Year Old Age Group (000'S)													
1967-68	38.6	7.4	56.0	45.8	498.2	523.6	70.2	65.5	108.7	142.1	1.3	2.5	1,559.9
1968-69	41.3	8.0	59.8	49.8	518.5	560.5	75.0	69.5	117.2	153.1	1.3	2.6	1,656.5
1969-70	43.7	8.6	63.5	53.0	533.9	595.4	79.3	72.3	126.0	163.1	1.5	2.8	1,743.1
1970-71	44.5	8.9	66.2	54.4	543.0	637.8	82.7	71.2	134.5	174.7	1.6	3.1	1,822.4
1971-72	44.8	9.2	66.4	56.6	549.4	674.1	85.5	68.9	142.3	185.2	1.8	3.4	1,889.4
1972-73	46.5	9.3	66.8	57.3	551.7	672.0	85.0	69.2	144.1	190.2	1.9	3.7	1,899.8
1973-74	48.5	9.5	70.0	58.7	559.4	680.0	86.1	70.7	149.5	197.9	2.0	4.0	1,936.4
1974-75	49.9	9.8	71.5	59.7	572.6	704.6	89.6	73.5	158.8	209.5	2.0	3.9	2,005.2
1975-76	51.4	9.8	73.2	61.8	589.4	727.9	91.8	77.4	172.1	217.4	2.2	4.1	2,076.6
1976-77	52.2	10.0	75.5	63.8	598.4	744.4	94.0	81.4	186.0	221.5	2.4	4.3	2,133.8
1977-78	52.6	10.3	77.1	65.7	614.1	759.4	95.0	85.7	202.0	224.9	2.4	4.4	2,193.5
1978-79	52.8	10.7	78.5	66.6	624.4	770.8	95.6	88.0	215.9	231.0	2.4	4.5	2,241.2
1979-80	52.5	10.8	79.0	66.4	632.3	776.6	94.3	88.9	229.1	236.0	2.3	4.6	2,272.9
1980-81	51.7	10.8	78.5	65.5	637.0	781.4	93.8	89.0	246.9	244.1	2.3	4.5	2,305.6
1981-82	51.1	10.6	78.4	64.5	643.7	789.6	94.0	89.0	264.2	251.3	2.3	4.7	2,343.6
1982-83	50.9	10.5	79.4	64.5	641.0	801.7	95.2	89.9	271.5	253.9	2.4	5.0	2,365.9
1983-84	53.0	11.0	81.5	66.3	639.5	820.2	97.1	92.3	265.0	255.6	2.1	5.2	2,388.7
1984-85	55.2	12.0	85.2	68.8	636.1	839.7	99.6	95.9	247.6	256.9	2.1	5.3	2,404.4
1985-86	56.6	12.3	86.9	69.7	628.9	848.3	100.2	96.8	234.6	252.1	2.2	5.6	2,394.2
1986-87	57.0	11.9	85.1	68.5	611.6	838.5	98.4	93.4	231.4	242.0	2.1	5.4	2,345.3
Projected													
1987-88	50.5	11.2	79.8	62.5	567.5	800.1	92.4	85.1	215.3	221.8	2.0	5.0	2,192.9
1988-89	60.2	11.1	79.7	67.1	555.4	790.4	93.8	89.6	197.4	235.8	1.9	5.3	2,187.8
1989-90	59.3	10.7	76.3	64.5	524.3	759.9	90.5	86.0	189.1	227.9	1.9	5.2	2,095.5
1990-91	58.1	10.5	73.4	62.4	496.8	737.7	87.9	83.2	184.2	223.1	1.9	5.0	2,024.2
1991-92	57.3	10.4	72.4	61.5	479.3	728.1	86.9	82.1	182.8	222.0	1.9	5.0	1,989.7
1992-93	57.2	10.5	71.7	61.4	465.8	721.7	86.4	82.0	181.8	220.4	2.0	4.9	1,965.8
1193-94	56.7	10.5	71.1	61.1	455.5	716.1	85.9	82.1	181.6	218.5	2.0	4.8	1,945.8
1994-95	55.8	10.4	70.0	60.8	448.4	707.1	85.0	81.7	180.9	214.9	2.0	4.6	1,921.3
1995-96	54.8	10.3	68.7	60.0	446.3	698.0	84.0	81.6	180.5	211.7	2.0	4.5	1,902.3
1996-97	53.7	10.1	67.1	59.1	445.5	685.4	82.7	81.7	180.2	208.3	2.0	4.4	1,879.9
1997-98	52.2	10.0	65.8	58.1	450.9	679.1	81.8	82.3	181.2	207.6	2.0	4.3	1,875.0
1998-99	50.9	10.0	64.2	57.1	457.9	675.2	80.9	82.8	182.1	207.8	2.0	4.3	1,875.1
1999-00	49.9	10.0	63.8	56.5	465.9	676.2	80.7	84.2	184.3	210.1	2.0	4.3	1,887.9
2000-01	49.1	10.0	63.5	55.8	472.0	677.1	80.6	85.5	186.6	212.4	2.1	4.3	1,899.0
2001-02	48.3	10.0	63.0	55.2	476.7	681.5	80.6	86.6	188.7	215.3	2.1	4.3	1,912.3
2002-03	48.5	10.1	63.1	55.1	478.0	688.2	81.6	87.9	191.8	219.8	2.2	4.4	1,930.6
2003-04	48.9	10.1	63.3	55.2	478.6	696.4	82.7	89.1	194.6	224.0	2.2	4.4	1,949.5
2004-05	49.5	10.2	63.7	55.6	479.9	705.0	83.5	90.5	199.0	228.4	2.3	4.4	1,972.0
2005-06	50.0	10.2	64.0	55.8	478.4	712.0	84.1	91.7	202.4	232.1	2.3	4.5	1,987.5
2006-07	50.9	10.3	64.7	56.3	478.2	719.3	84.8	93.1	205.5	235.3	2.3	4.5	2,005.3

TABLE 4 (Continued)

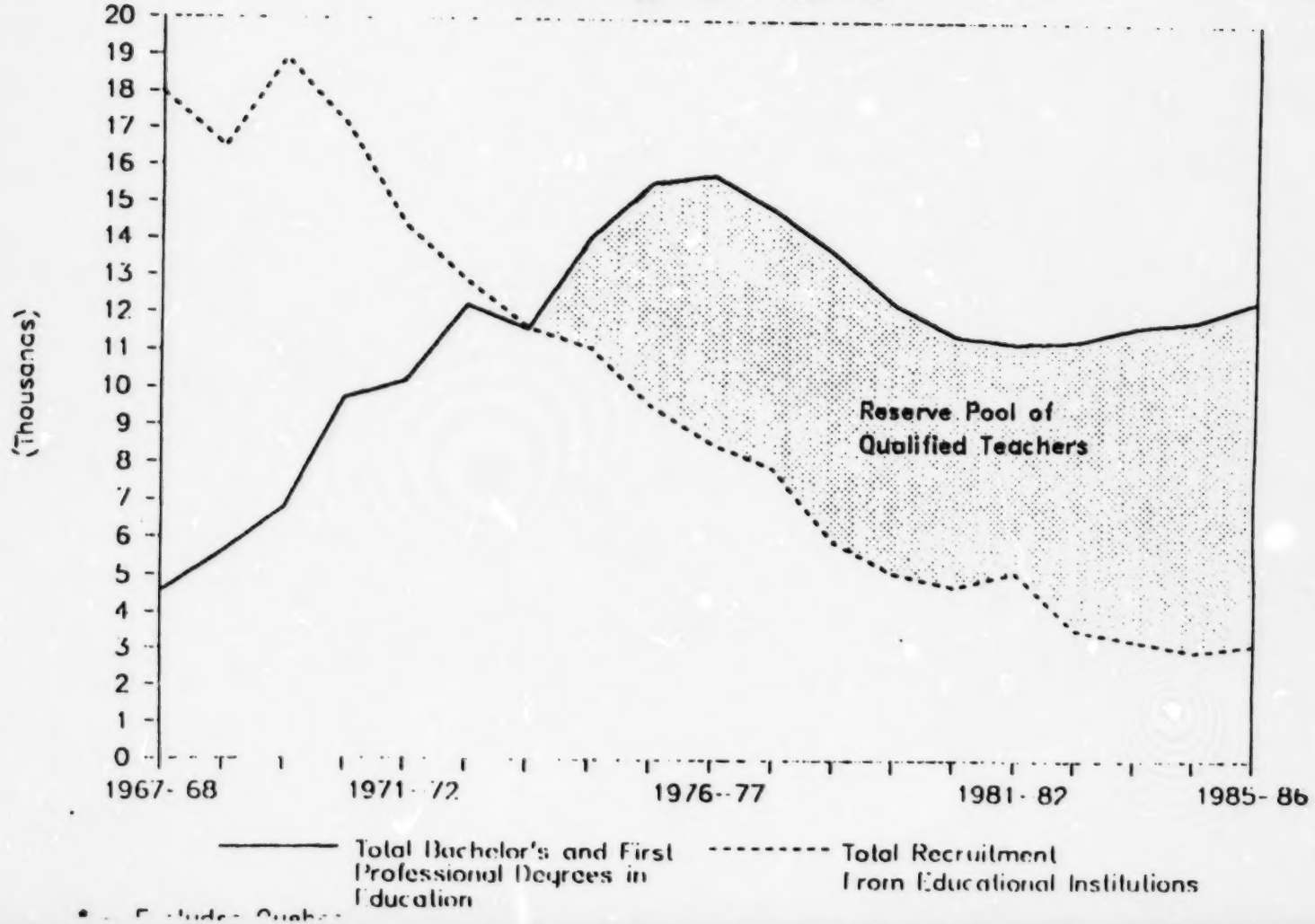
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	CANADA
B. Total Bachelor's and First Professional Degrees													
1967-68	599	109	2,277	1,828	16,831	14,966	2,858	2,186	3,512	3,621	-	-	48,787
1968-69	775	279	2,768	1,945	17,032	17,284	3,283	2,673	4,176	4,480	-	-	54,695
1969-70	823	277	3,078	1,865	17,309	20,946	3,522	2,981	4,751	4,901	-	-	60,453
1970-71	1,089	363	3,626	2,473	17,489	24,648	3,675	3,129	5,641	5,067	-	-	67,200
1971-72	1,176	405	3,480	2,769	18,795	28,047	3,933	2,946	5,970	5,043	-	-	72,564
1972-73	1,434	351	3,873	2,928	14,301	29,718	4,290	2,796	5,898	5,106	-	-	70,695
1973-74	1,684	355	4,123	2,896	15,529	31,686	4,217	2,754	6,427	5,180	-	-	74,851
1974-75	1,567	419	4,021	2,710	17,142	36,513	4,069	2,849	6,285	5,162	-	-	80,737
1975-76	1,483	282	4,345	2,740	16,828	38,911	4,298	2,980	6,114	5,294	-	-	83,275
1976-77	1,557	301	4,300	2,406	19,258	40,278	4,406	2,925	6,490	5,435	-	-	87,356
1977-78	1,577	301	4,354	2,343	20,669	39,714	4,460	3,103	6,858	5,903	-	-	89,282
1978-79	1,397	293	4,241	2,727	20,207	37,741	4,437	3,192	7,109	5,786	-	-	87,130
1979-80	1,365	354	4,080	2,514	21,727	36,233	4,188	3,275	6,648	5,997	-	-	86,381
1980-81	1,375	260	3,953	2,285	21,692	36,159	3,847	3,181	6,395	5,779	-	-	84,926
1981-82	1,427	248	4,106	2,191	22,469	37,208	3,868	3,163	6,349	6,077	-	-	87,106
1982-83	1,518	254	4,044	2,256	22,220	39,430	3,929	3,272	6,512	6,335	-	-	89,770
1983-84	1,669	296	4,227	2,365	21,685	41,114	4,356	3,412	7,048	6,644	-	-	92,816
1984-85	1,841	264	4,578	2,480	22,183	43,117	4,739	3,651	7,652	6,971	-	-	97,474
1985-86	2,077	304	4,773	2,606	23,531	43,925	4,976	3,925	8,095	7,456	-	-	101,668
C. Bachelor's and First Professional Degrees in Education													Total
1967-68	264	3	404	422	4,084	524	258	503	1,353	849	-	-	9,469
1968-69	400	47	590	475	4,422	521	382	789	1,510	930	-	-	10,066
1969-70	373	28	685	434	5,283	1,364	485	795	1,598	1,033	-	-	12,078
1970-71	465	78	834	747	5,483	3,014	541	889	2,047	1,111	-	-	15,209
1971-72	590	94	755	904	5,836	3,041	645	870	2,151	1,133	-	-	16,019
1972-73	722	90	782	1,033	4,024	3,439	1,739	920	2,276	1,211	-	-	15,286
1973-74	778	108	857	939	3,236	3,556	858	863	2,449	1,144	-	-	14,788
1974-75	604	122	917	933	3,500	6,327	828	936	2,205	1,201	-	-	16,763
1975-76	623	86	935	1,067	3,182	7,810	919	985	2,052	1,099	-	-	18,758
1976-77	663	62	970	855	3,981	7,821	1,035	1,002	2,265	1,121	-	-	19,775
1977-78	658	72	924	857	4,669	6,782	1,081	1,030	2,273	1,168	-	-	19,514
1978-79	546	49	814	1,077	4,575	5,574	1,085	1,014	2,354	1,162	-	-	18,250
1979-80	546	65	738	901	4,615	4,845	931	1,039	2,097	1,124	-	-	16,901
1980-81	473	42	696	592	4,975	5,115	717	1,045	1,775	986	-	-	16,416
1981-82	484	35	672	543	4,640	5,326	615	981	1,637	950	-	-	15,883
1982-83	541	41	605	560	4,126	5,217	741	990	1,695	941	-	-	15,457
1983-84	631	49	562	564	3,588	5,363	777	1,028	1,897	864	-	-	15,323
1984-85	706	37	465	524	3,527	5,466	802	1,009	1,951	926	-	-	15,413
1985-86	792	57	520	571	3,439	5,498	857	1,129	2,052	971	-	-	15,886

TABLE 4 (Continued)

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	CANADA
D. Ratio of Total Bachelor's and First Professional Degrees in Education to the 20-24 Year Old Age Group (%)													
1967-68	0.68	0.04	0.72	0.92	0.82	0.10	0.37	0.77	1.24	0.60	-	-	0.61
1968-69	0.97	0.59	0.99	0.95	0.85	0.09	0.51	1.14	1.29	0.61	-	-	0.61
1969-70	0.85	0.33	1.08	0.82	0.99	0.23	0.61	1.10	1.27	0.63	-	-	0.69
1970-71	1.04	0.88	1.26	1.37	1.01	0.47	0.65	1.25	1.52	0.64	-	-	0.83
1971-72	1.32	1.02	1.10	1.60	1.06	0.45	0.75	1.26	1.51	0.61	-	-	0.85
1972-73	1.55	0.97	1.14	1.80	0.73	0.51	2.05	1.33	1.58	0.64	-	-	0.90
1973-74	1.60	1.14	1.22	1.60	0.58	0.52	1.00	1.22	1.64	0.58	-	-	0.76
1974-75	1.21	1.27	1.28	1.56	0.61	0.90	0.92	1.27	1.39	0.57	-	-	0.84
1975-76	1.21	0.88	1.28	1.73	0.54	1.07	1.00	1.27	1.19	0.51	-	-	0.90
1976-77	1.27	0.62	1.28	1.34	0.67	1.05	1.10	1.23	1.22	0.51	-	-	0.93
1977-78	1.25	0.70	1.20	1.30	0.76	0.89	1.14	1.20	1.13	0.52	-	-	0.89
1978-79	1.03	0.46	1.04	1.62	0.73	0.72	1.13	1.15	1.09	0.50	-	-	0.81
1979-80	1.04	0.60	0.93	1.36	0.73	0.62	0.99	1.17	0.92	0.48	-	-	0.74
1980-81	0.91	0.39	0.89	0.90	0.78	0.65	0.76	1.17	0.72	0.40	-	-	0.71
1981-82	0.95	0.33	0.86	0.84	0.72	0.67	0.65	1.10	0.62	0.38	-	-	0.68
1982-83	1.06	0.39	0.76	0.87	0.64	0.65	0.78	1.10	0.62	0.37	-	-	0.65
1983-84	1.19	0.45	0.69	0.85	0.56	0.65	0.80	1.11	0.72	0.34	-	-	0.64
1984-85	1.28	0.31	0.55	0.76	0.55	0.65	0.81	1.05	0.79	0.36	-	-	0.64
1985-86	1.40	0.48	0.60	0.82	0.55	0.65	0.86	1.17	0.87	0.39	-	-	0.68
E. Ratio of Bachelor's and First Professional Degrees in Education to Total Graduates (%)													
1967-68	44.07	2.75	17.74	23.09	24.26	3.50	9.03	23.01	38.53	23.45	-	-	19.41
1968-69	51.61	16.85	21.32	24.42	25.96	3.01	11.64	29.52	36.16	20.76	-	-	18.40
1969-70	45.32	10.11	22.25	23.27	30.52	6.51	13.77	26.67	33.64	21.08	-	-	19.98
1970-71	42.70	21.49	23.00	30.21	31.35	12.23	14.72	28.41	36.29	21.93	-	-	22.63
1971-72	50.17	23.21	21.70	32.65	31.05	10.84	16.40	29.53	36.03	22.47	-	-	22.08
1972-73	50.35	25.64	20.19	35.28	28.14	11.57	40.54	32.90	38.59	23.72	-	-	21.62
1973-74	46.20	30.42	20.79	32.42	20.84	11.22	20.35	31.34	38.10	22.08	-	-	19.76
1974-75	38.54	29.12	22.81	34.43	20.42	17.33	20.35	32.85	35.08	23.27	-	-	20.76
1975-76	42.01	30.50	21.52	38.94	18.91	20.07	21.38	33.05	33.56	20.76	-	-	22.53
1976-77	42.58	20.60	22.56	35.54	20.67	19.42	23.49	34.26	34.90	20.63	-	-	22.64
1977-78	41.72	23.92	21.22	36.58	22.59	17.08	24.24	33.19	33.14	19.79	-	-	21.86
1978-79	39.08	16.72	19.19	39.49	22.64	14.77	24.45	31.77	33.11	20.08	-	-	20.95
1979-80	40.00	18.36	18.09	35.84	21.24	13.37	22.23	31.73	31.54	18.74	-	-	19.57
1980-81	34.40	16.15	17.61	25.91	22.93	14.15	18.64	32.85	27.76	17.06	-	-	19.33
1981-82	33.92	14.11	16.37	24.78	20.65	14.31	15.90	31.01	25.78	15.63	-	-	18.23
1982-83	35.64	16.14	14.96	24.82	18.57	13.23	18.86	30.26	26.03	14.85	-	-	17.22
1983-84	37.81	16.55	13.30	23.85	16.55	13.04	17.84	30.13	26.92	13.00	-	-	16.51
1984-85	38.35	14.02	10.16	21.13	15.90	12.68	16.92	27.64	25.50	13.28	-	-	15.81
1985-86	38.13	18.75	10.89	21.91	14.61	12.52	17.22	28.76	25.35	13.02	-	-	15.63

Sources: Statistics Canada, Population Projections for Canada, Provinces and Territories, 1954-2006, Catalogue 91-520, Occasional.
Statistics Canada, Universities, Enrolment and Degrees, Catalogue 81-204 Annual, relevant issues.

Chart 1. Total Bachelors and First Professional Degrees in Education and Total Recruitment from Educational Institutions CANADA*, 1967–68 to 1985–86



* ... Excludes Quebec